

### **REMARKS**

In response to the Office Action of November 4, 2005, Applicants have amended the claims, which when considered with the following remarks, is deemed to place the present application in condition for allowance. Favorable consideration and allowance of all pending claims is respectfully requested. The amendments to the claims have been made in the interest of expediting prosecution of this case. Applicants reserve the right to prosecute the same or similar subject matter in this or another application.

Claims 1-30 are pending in this application. By this Amendment, Claims 1 and 20 have been amended. Support for amended Claims 1 and 20 can be found throughout the specification, e.g., page 3, lines 8-15 and page 6, lines 12-18. Applicants respectfully submit that no new matter has been added to this application nor have any new issues been raised by these amendments. Moreover, it is believed that the amendment to the claims as presented herein places the application in condition for allowance or in better form for consideration on appeal, if one becomes necessary. Accordingly, entry and consideration of the present Amendment is deemed appropriate as it places the application in condition for allowance.

The Examiner has provisionally rejected Claims 10 and 22-23 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending U.S. Application No. 10/699,510. Upon resolution of all outstanding issues remaining in the Office Action, Applicants will consider the timely submission of a Terminal Disclaimer.

The Examiner has provisionally rejected Claims 20 and 22-30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending U.S.

Application No. 10/699,507. Upon resolution of all outstanding issues remaining in the Office Action, Applicants will consider the timely submission of a Terminal Disclaimer.

The Examiner has provisionally rejected Claims 20, 22-24 and 26-30 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending U.S. Application No. 10/699,508. Upon resolution of all outstanding issues remaining in the Office Action, Applicants will consider the timely submission of a Terminal Disclaimer.

The Examiner has provisionally rejected Claims 1 and 17-18 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending U.S. Application No. 10/779,422. Upon resolution of all outstanding issues remaining in the Office Action, Applicants will consider the timely submission of a Terminal Disclaimer.

The Examiner has finally rejected Claims 1-3, 8-11 and 16-19 under 35 U.S.C. §102(e) as being anticipated by Carey et al., U.S. Publication No. 2004/0144355 ("Carey et al.").

Carey discloses a marine diesel engine system containing a slow-speed cross head marine diesel engine with at least one cylinder; cylinder lubricant components proximate to the engine and selected from (i) an alkylamine-alkylphosphate having at least 1.25 equivalents of alkylamine to 1.0 equivalents of alkylphosphate, (ii) 500 TBN calcium sulfonate, and (iii) mixtures thereof; and means for blending the primary lubricant and additive into a mixture for introduction into the cylinder when engine conditions require the mixture. Carey further discloses storage stability data of a series of oil compositions that were obtained by storing the samples at a temperature and time period (shown in Table II of Carey) until a noticeable amount of sediment or floc appeared and then measuring the volume percent of such precipitate.

According to the Examiner, the combinatorial lubricating oil composition library recited in the instant claims only requires a plurality of different lubricating oil compositions with each composition comprising a major amount of at least one base oil of lubricating viscosity and at least one lubricating oil additive. The Examiner goes on to state that the reference to Carey et al. teaches just this in paragraph numbers 13 and 14, i.e., the disclosure of a marine diesel engine lubricant as the primary lubricant which comprises a major amount of at least one oil of lubricating viscosity, and an additive such as a detergent, an antioxidant, a dispersant, a demulsifier, a defoamant or an antiwear additive, and in Example 2, i.e., the disclosure of a major amount of a marine engine oil and varying amounts of different high TBN additives. Thus, it is the Examiner's apparent belief that this disclosure in Carey et al. constitutes a "combinatorial library" as known to one skilled in the art and therefore anticipates instant Claim 1 because a combinatorial library usually refers to a collection of materials or compounds that are similar to one another in most properties, but differ from one another slightly in a property such as the amount or specific type of chemical components therein.

In contrast to the presently claimed invention, Carey et al. fail to disclose or suggest a combinatorial lubricating oil composition library comprising a diverse number of a plurality of different lubricating oil compositions comprising (a) a major amount of at least one base oil of lubricating viscosity and (b) at least one lubricating oil additive as presently recited in amended Claim 1. Carey et al. also fail to disclose or suggest a "combinatorial lubricating oil composition library ... further comprising lubricating oil composition property data for each of the different lubricating oil compositions" as presently recited in Claim 17. Thus, the presently recited combinatorial library, as set forth in the present claims, contains a diverse number of a plurality

of different lubricating oil compositions, i.e., a library containing many different lubricating oil compositions including many different base oils each of varying amounts which can be any presently known or later-discovered base oil of lubricating viscosity used in formulating lubricating oil compositions for any and all such applications, e.g., engine oils, marine cylinder oils, functional fluids such as hydraulic oils, gear oils, transmission fluids, etc. and not just marine diesel oils and many different lubricating oil additives also each of varying amounts. The library further contains lubricating oil composition property data for each of the different lubricating oil compositions following being screened via a high throughput screening method.

Accordingly, one skilled in the art of combinatorial chemistry would readily understand that the presently claimed combinatorial lubricating oil composition library is different than the lubricating component for marine diesel engines in Carey et al. which simply includes a marine diesel engine lubricant as the primary lubricant which comprises a major amount of at least one oil of lubricating viscosity, and an additive such as a detergent, an antioxidant, a dispersant, a demulsifier, a defoamant or an antiwear additive. Applicants therefore respectfully disagree with the Examiner's statement on page 11 of the Office Action that "since Carey et al. teach of each and every one of the recited components in the combinatorial lubricating oil library as recited in instant claim 1, the reference to Carey et al. anticipates this claim." As set forth above, unquestionably the presently claimed combinatorial lubricating oil composition library is significantly different than the marine diesel engine system in Carey et al. Thus, Carey et al do not disclose all of the elements and limitations of the claimed invention. For the foregoing reasons, amended Claims 1-3, 8-11 and 16-19 are believed to be patentably distinct over Carey et al. and withdrawal of the rejection under 35 U.S.C. §102(e) is respectfully requested.

The Examiner has finally rejected Claims 4-7 and 12-15 under 35 U.S.C. §103(a) as being unpatentable over Carey et al.

The foregoing deficiencies of Carey et al. discussed above with respect to the rejection of Claim 1, from which Claims 4-7 and 12-15 ultimately depend, apply with equal force to this rejection. At no point is there any suggestion, motivation or even a hint in Carey et al. of providing a combinatorial lubricating oil composition library comprising a diverse number of a plurality of different lubricating oil compositions comprising (a) a major amount of at least one base oil of lubricating viscosity and (b) at least one lubricating oil additive as presently recited in amended Claim 1, from which Claims 4-7 and 12-15 ultimately depend. Instead, Carey et al. merely disclose a lubricating component for marine diesel engines which includes a marine diesel engine lubricant as the primary lubricant and an additive such as a detergent, an antioxidant, a dispersant, a demulsifier, a defoamant or an antiwear additive. As such, nothing in Carey et al. would lead one skilled in the art to modify the lubricating component for marine diesel engines disclosed therein and arrive at the presently recited combinatorial lubricating oil composition library. Accordingly, Claims 4-7 and 12-15 are believed to be nonobvious, and therefore patentable, over Carey et al. and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

The Examiner has finally rejected Claims 20-26 under 35 U.S.C. §103(a) as being unpatentable over Carey et al. in view of Kolosov et al., U.S. Publication No. 2004/0123650 ("Kolosov et al.").

Nowhere does Carey et al. disclose or suggest a high throughput method for producing a combinatorial lubricating oil composition library, under program control, comprising (a) providing a library of a diverse number of a plurality of different lubricating oil composition samples comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive, each sample being in a respective one of a plurality of test receptacles; (b) measuring lubricating oil composition properties of each sample to provide lubricating oil composition property data for each sample; and, (c) outputting the results of step (b) as presently recited in amended Claim 20.

Rather, as discussed above, Carey et al. simply disclose a lubricating component for marine diesel engines which includes a marine diesel engine lubricant as the primary lubricant which contains a major amount of at least one oil of lubricating viscosity, and an additive such as a detergent, an antioxidant, a dispersant, a demulsifier, a defoamant or an antiwear additive. Carey et al. further disclose in Example 2 preparing a lubricating oil composition containing a major amount of a marine engine oil and varying amounts of different high TBN additives. At no point is there any suggestion, motivation or even a hint in Carey et al. of obtaining a combinatorial lubricating oil composition library comprising a diverse number of a plurality of different lubricating oil compositions comprising (a) a major amount of at least one base oil of lubricating viscosity and (b) at least one lubricating oil additive, together with lubricating oil composition properties for each composition via a high throughput method. Accordingly, one skilled in the art would not be remotely motivated by the disclosure of Carey to modify the a lubricating component for marine diesel engines disclosed therein and arrive at the presently

recited high throughput method for producing a combinatorial lubricating oil composition library, under program control with any expectation of success.

Kolosov et al. fail to cure the deficiencies of Carey et al. Specifically, nowhere does Kolosov et al. disclose or suggest high throughput method for producing a combinatorial lubricating oil composition library, under program control, comprising (a) providing a library of a diverse number of a plurality of different lubricating oil composition samples comprising (i) a major amount of at least one base oil of lubricating viscosity and (ii) a minor amount of at least one lubricating oil additive, each sample being in a respective one of a plurality of test receptacles; (b) measuring lubricating oil composition properties of each sample to provide lubricating oil composition property data for each sample; and, (c) outputting the results of step (b) as presently recited in amended Claim 20.

Rather, Kolosov et al. disclose a system and method for screening a library of a multitude of genera of material samples for rheological properties. The genera of materials disclosed in Kolosov which can be tested include polymeric materials, organic materials, amorphous materials, crystalline materials, macromolecular materials, small-molecule materials, inorganic materials, pure materials, mixtures of the materials, any commercial product itself or an ingredient or portion within a commercial product such as pharmaceuticals, coatings, cosmetics, adhesives, inks, foods, crop agents, detergents, protective agents, and lubricants, as well as gels, oils, solvents, greases, creams, foams and other whipped materials, ointments, pastes, powders, films, particles, bulk materials, dispersions, suspensions, and emulsions.

In addition to testing the rheological properties of the broad categories of flowable material, Kolosov et al. disclose that other properties may be tested and includes a large number of broad tests such as density, melt index, thermal degradation, aging characteristics, weight-average molecular weight, number-average molecular weight, viscosity-average molecular weight, peak molecular weight, approximate molecular weight, polydispersity index, molecular-weight-distribution shape, relative or absolute component concentration, conversion, concentration, mass, hydrodynamic radius, radius of gyration, chemical composition, amounts of residual monomer, presence and amounts of other low-molecular weight impurities in samples, particle or molecular size, intrinsic viscosity, molecular shape, molecular conformation, and/or agglomeration or assemblage of molecules. According to Kolosov, any of the genera of flowable materials can be subjected to any of the plurality of tests disclosed.

However, at no point is there any appreciation in Kolosov et al. of the presently recited high throughput method for producing a combinatorial lubricating oil composition library, under program control, of amended Claim 20. Thus, even by combining the high throughput method of Kolosov et al. with the lubricating component for marine diesel engines which includes a marine diesel engine lubricant as the primary lubricant which contains a major amount of at least one oil of lubricating viscosity, and an additive such as a detergent, an antioxidant, a dispersant, a demulsifier, a defoamant or an antiwear additive of Carey et al., one skilled in the art would not arrive at the presently recited high throughput method of Claim 20. Accordingly, Claims 20-26 are believed to be nonobvious, and therefore patentable, over Carey et al. and Kolosov et al. and withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

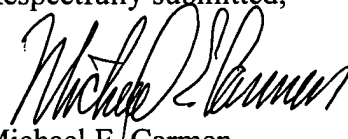


The Examiner has finally rejected Claims 27-30 under 35 U.S.C. §103(a) as being unpatentable over Carey et al. in view of Kolosov et al. and further in view of Smrcka et al., European Patent No. 1233361 ("Smrcka et al.").

The foregoing deficiencies of Carey et al. and Kolosov et al. discussed above with respect to the rejections of Claim 20, from which Claims 27-30 ultimately depend, apply with equal force to this rejection. Smrcka et al. does not cure and is not cited as curing the above-noted deficiencies of Carey et al. and Kolosov et al. Rather, Smrcka et al. is merely cited for its disclosure of storing test results in a data carrier. Accordingly, Claims 27-30 are believed to be nonobvious, and therefore patentable, over of Carey et al., Kolosov et al. and Smrcka et al.

For the foregoing reasons, amended Claims 1-30 as presented herein are believed to be in condition for allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,



Michael E. Carmen  
Reg. No. 43,533  
Attorney for Applicants

M. CARMEN & ASSOCIATES, PLLC  
170 Old Country Road – Suite 400  
Mineola, NY 11501  
Phone: (516) 992-1848  
Facsimile: (516) 739-0981  
MEC:bg